09/889,379

WEST

Freeform Search

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Term: L13 and linker$1

Display: 10 **Documents in Display Format:** - **Starting with Number** 1

Generate: ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search | Clear | Help | Logout | Interrupt

Main Menu | Show S Numbers | Edit S Numbers | Preferences | Cases

Search History

DATE: Sunday, January 12, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ		
L14	L13 and linker$1	16	L14
L13	compound$1 near5 recognize$1 near5 (base sequence or DNA)	23	L13
L12	(glucuronidase or lactamase) near5 (base sequence or DNA) near5 recognize$1	1	L12
L11	L10 and (base sequence$1 or DNA)	1	L11
L10	l2 and recogniz$3	1	L10
L9	L8 and formula	0	L9
L8	l6 and linker$1	0	L8
L7	L6 and linker$1 and kit$1	0	L7
L6	5502068.pn.	2	L6
L5	l2 and formla	0	L5
L4	l2 and kit$1	0	L4
L3	l2 and kits	0	L3
L2	L1 and linker$1	2	L2
L1	5843937.pn.	2	L1

END OF SEARCH HISTORY

Generate Collection | Print

Search Results - Record(s) 1 through 10 of 16 returned.

☑ 1. 6395474 . 22 Nov 93; 28 May 02. Peptide nucleic acids. Buchardt; Ole, et al. 435/6; 435/69.1 436/501 436/63 530/300 530/350 536/22.1 536/23.1 536/24.1 536/24.3 536/24.31 536/24.32 536/24.33 536/25.4. C12Q001/68 C12P021/06 A61K038/00 C07K001/00.

☐ 2. 6303342 . 19 Nov 99; 16 Oct 01. Recombinant methods and materials for producing epothilones C and D. Julien; Bryan, et al. 435/76;. C12P019/62.

☐ 3. 6174680 . 30 Dec 98; 16 Jan 01. Method for identifying mismatch repair glycosylase reactive sites, compounds and uses thereof. Makrigiorgos; Gerassimos M.. 435/6; 435/91.1 435/91.2 536/24.33. C12Q001/68 C07H019/00 C07H021/00 C07H021/02 C07H021/04.

☐ 4. 6090947 . 26 Feb 96; 18 Jul 00. Method for the synthesis of pyrrole and imidazole carboxamides on a solid support. Dervan; Peter B., et al. 548/312.4; 536/22.1 536/23.1 536/25.3 536/25.33 536/25.6 536/26.1 548/312.1 548/312.7 548/313.1 548/314.7 548/334.5 548/557. C07D231/02 C07D403/02 C07D233/04 C07N019/00 C07N021/02 C07N021/04.

☐ 5. 5986053 . 07 Jun 95; 16 Nov 99. Peptide nucleic acids complexes of two peptide nucleic acid strands and one nucleic acid strand. Ecker; David J., et al. 530/350; 536/24.5. C07K002/00.

☐ 6. 5773571 . 01 Feb 96; 30 Jun 98. Peptide nucleic acids. Nielsen; Peter E., et al. 530/300; 435/6 436/501 536/23.1 536/24.1 536/24.3 536/24.31 536/24.32 536/24.33 536/25.3. C12Q001/68 C07K005/00.

☐ 7. 5658788 . 21 Apr 95; 19 Aug 97. Compounds and methods for treatment of thromboembolic disorders. Berg; David T., et al. 435/325; 435/212 435/226 435/320.1 435/352 435/359 435/369 536/23.2. C12N005/10 C12N009/48 C12N015/00 C12N015/58.

☐ 8. 5641625 . 02 Jul 93; 24 Jun 97. Cleaving double-stranded DNA with peptide nucleic acids. Ecker; David J., et al. 435/6; 536/24.3. C12Q001/68.

☐ 9. 5595736 . 27 Mar 95; 21 Jan 97. Compounds and methods for treatment of thromboembolic disorders. Berg; David T., et al. 424/94.64; 424/94.63 435/212 435/226. A61K038/46 A61K038/49 C12N009/48 C12N009/64.

☐ 10. 5539082 . 26 Apr 93; 23 Jul 96. Peptide nucleic acids. Nielsen; Peter E., et al. 530/300; 435/DIG.17 536/18.7 536/24.3 544/242 544/264. C07K007/00 C07H005/04 C07H021/04 C07D239/00.

Generate Collection | Print

Generate Collection | Print

Search Results - Record(s) 11 through 16 of 16 returned.

☐ 11. 5491063 . 01 Sep 94; 13 Feb 96. Methods for in-solution quenching of fluorescently labeled oligonucleotide probes. Fisher; Mary E., et al. 435/6; 435/5 435/91.2 536/25.32 536/26.6. C12Q001/70 C12Q001/68 C07H019/04 C12P019/34.

☑ 12. 5273991 . 29 Jul 92; 28 Dec 93. Imidazole-containing compositions and methods of use thereof analogs of distamycin. Lee; Moses N. F.. 514/397; 514/398 514/400 548/311.1 548/312.7 548/315.1 548/328.1 548/328.5. A61K031/415 C07D403/02 C07D403/10 C07D403/14.

☐ 13. 5008194 . 16 Oct 87; 16 Apr 91. nifH promoters of Bradyrhizobium. Rolfe; Barry G., et al. 435/473; 424/93.2 435/252.2 435/252.3 435/320.1 536/23.6 536/24.1 71/7. C12N015/00 C12R001/41 C07H015/12.

☐ 14. 5001061 . 16 Oct 87; 19 Mar 91. nifD promoter of Bradyrhizobium. Rolfe; Barry G., et al. 435/473; 424/93.2 435/252.2 435/252.3 435/320.1 536/23.1 536/23.6 536/24.2 71/7. C12N015/00 C12R001/41 C07H015/12.

☐ 15. 4803165 . 07 Aug 85; 07 Feb 89. Nif promoter of fast-growing rhizobium japonicum. Appelbaum; Edward R.. 71/7; 424/93.2 435/252.2 435/252.33 435/320.1 435/476 435/69.1 536/23.6 536/23.7 536/23.71 536/24.1. C12N015/00 C12N001/20 C12P021/00 C07H015/12.

☐ 16. 4782022 . 22 May 85; 01 Nov 88. Nitrogen fixation regulator genes. Puhler; Alfred, et al. 435/488; 435/252.2 435/252.33 435/320.1 536/23.2 536/23.6 536/23.71 536/24.1 930/200. C12N015/00 C12N001/20 C07H015/12.

Generate Collection | Print

Term	Documents
LINKER$1	0
LINKER.DWPI,EPAB,JPAB,USPT.	24715
LINKERA.DWPI,EPAB,JPAB,USPT.	3
LINKERB.DWPI,EPAB,JPAB,USPT.	1
LINKERD.DWPI,EPAB,JPAB,USPT.	2
LINKERS.DWPI,EPAB,JPAB,USPT.	12742
LINKERT.DWPI,EPAB,JPAB,USPT.	24
LINKERV.DWPI,EPAB,JPAB,USPT.	2
LINKER1.DWPI,EPAB,JPAB,USPT.	7
LINKER2.DWPI,EPAB,JPAB,USPT.	6
LINKER3.DWPI,EPAB,JPAB,USPT.	2
(L13 AND LINKER$1).USPT,JPAB,EPAB,DWPI.	16

There are more results than shown above. Click here to view the entire set.

Generate Collection

L14: Entry 12 of 16 File: USPT Dec 28, 1993

DOCUMENT-IDENTIFIER: US 5273991 A
TITLE: Imidazole-containing compositions and methods of use thereof analogs of distamycin

Brief Summary Text (9):
Lown et al. (1989) J. Med. Chem. 32, 2368 and U.S. Pat. No. 4,912,199 to Lown et al. discloses oligopeptides structurally related to distamycin and netrospin in which the heterocyclic moieties are linked by polymethylene bridges or dicarboxylic acid derivatives, respectively. Enhanced antitumor activity against certain cell types and antiviral activity specific for vaccinia virus as a result of introduction of polymethylene linkers ([CH.sub.2].sub.n with n=1,2 and 6-8) was attributed to increased lipophilicity promoting cellular uptake, since DNA binding is comparable to that of the parent compounds.

Brief Summary Text (61):
The compounds of the present invention are useful as anticancer agents. Although the biological mechanism which results in anticancer activity is not fully understood, the compounds of the subject invention are capable of binding to the minor groove of double-stranded DNA and, unlike distamycin and netropsin, can tolerate GC-containing DNA. Accordingly, the DNA alkylating moiety of the compounds of the present invention can be directed to the minor groove of GC-containing regions of double-stranded DNA. One of ordinary skill in the art can determine the DNA alkylating ability of the compounds of the present invention by art-recognized methods. The formation of an irreversible adduct of DNA and a compound of the present invention is defined herein as a measure of the DNA alkylating ability of the subject compounds. The formation of an irreversible adduct can be determined by art-recognized methods. For example, a solution containing DNA and a compound of the present invention can be exhaustively dialyzed under conditions which allow unbound drug to pass out of the dialysis bag. The percentage of the compound which has been retained in the dialysis bag is considered to be covalently bound to the DNA, and is determined by comparing the UV absorption spectrum of the compound/DNA solution before and after exhaustive dialysis.

Generate Collection

L14: Entry 4 of 16 File: USPT Jul 18, 2000

DOCUMENT-IDENTIFIER: US 6090947 A
TITLE: Method for the synthesis of pyrrole and imidazole carboxamides on a solid support

Drawing Description Text (22):
FIG. 19 depicts a ribbon graphic illustrating how the oligonucleotide-polyamide conjugate Dp-G-PyPyPy-G-PyPyIm-linker-TTTTTT.sup.m C.sup.m CTTT might bind to double helical DNA.

Detailed Description Text (19):
The solid phase polyamide synthesis protocols of this invention were modified from the in situ neutralization, Boc-chemistry recently reported by Kent and coworkers (Schnolzer et al. (1992) Int. J. Peptide Protein Res. 40:180-193; Milton et al. (1992) Science 252:1445-1448). In its most basic form the method of preparing imidazole and pyrrole carboxamide polyamides according to the present invention may be defined by the following series of steps: (1) The solid support, preferably a polystyrene resin, is prepared. The polystyrene resin is prepared by reaction with a linker molecule to enable facile attachment and removal of the polyamide. In one embodiment a spacer molecule is attached to the polyamide prior to attachment of the linker molecule. (2) The appropriate amino acid (aa) monomer or dimer is then protected at the amino (NH.sub.2) group and activated at the carboxylic acid (COOH) group. The amino (NH.sub.2) group is protected with a Boc-group an Fmoc-group and the carboxylic acid is activated by the formation of the -OBt ester, to give, in the case of the pyrrole and imidazole amino acids Boc-pyrrole-OBt (9), Boc-imidazole-OBt (13), Fmoc-pyrrole-OBt (21a) and Fmoc-imidazole-OBt (21b). (3) The protected and activated amino acids are then sequentially added to the solid support beginning with the carboxy terminal amino acid. High concentrations of activated monomer results in fast coupling reactions and in situ neutralization chemistry assures that the unstable deprotonated amine is generated simultaneous with the initiation of a coupling reaction. Coupling times are rapid, generally 72 minutes per residue, and simple, requiring no special precautions beyond those required for ordinary solid phase peptide synthesis. (4) When the desired polyamide has been prepared the amino acids are deprotected and the peptide is cleaved from the resin and purified. The reactions are periodically monitored using picric acid titration and high pressure liquid chromatography (HPLC). Each of these steps are described in detail below. The synthesis of ImPyPyPyPyPyPy-G-ED (G=glycine, ED=ethylenediamine) 1a, ImPyPyPyPyPyPy-G-Dp (Dp=dimethylaminopropylamine) 1b, ImPyPyPyPyPyPy-G-Ta (Ta=3,3'-diamino-N-methylpropylamine) 1c, ImPyPyPyPyPyPy-G-Ta-EDTA (EDTA=ethylenediaminetetraacetic acid) 1d, ImPyPy-G-PyPyPy-G-ED 2a, ImPyPy-G-PyPyPy-Dp 2b, AcImPyPy-G-PyPyPy-G-Dp (Ac=acyl) 2c, AcImPyPy-G-PyPyPy-G-Ta-EDTA 2d, AcImPyPy-.gamma.-PyPyPy-G-Dp 3a, AcImPyPy-.gamma.-PyPyPy-G-Ta 3b, AcImPyPy-.gamma.-PyPyPy-G-EDTA 3c, AcImImPy-.gamma.-PyPyPy-G-Dp 4a, AcImImPy-.gamma.-PyPyPy-G-Ta 4b, AcImImPy-.gamma.-PyPyPy-G-EDTA 4c, AcPyPyPy-.gamma.-ImImPy-G-Dp 5a, AcPyPyPy-.gamma.-ImImPy-G-Ta 5b, and AcPyPyPy-.gamma.-ImImPy-G-Ta-EDTA 5c (FIG. 7) is described herein. A complete list of illustrative polyamides synthesized by the methods of this invention is set forth in Table 1. All compounds listed in this table have been characterized by .sup.1 H NMR, HPLC, MALDI-TOF mass spectroscopy and in some cases .sup.13 C NMR.

Detailed Description Text (20):
The pyrrole and imidazole polyamides of this invention are contemplated for use as antiviral, antibacterial and antitumor compounds which recognize double stranded DNA by interaction with the minor groove of the DNA. Specifically, it is anticipated that the pyrrole and imidazole polyamides may be used to sequence DNA ligands which are able to specifically inhibit DNA binding proteins, such as transcription factors which are responsible for gene regulation, thus, providing a basis for rapid rational design

of therapeutic compounds. The ethylenediaminetetraacetic acid (EDTA) derivatives of the polyamides synthesized by the method of this invention are also contemplated for use in the field of molecular biology. These molecules can be used to bind and cleave double stranded DNA at a specific site using iron (Fe) and EDTA.

Detailed Description Text (23):
The pyrrole and imidazole polyamide-oligonucleotide conjugates of this invention are contemplated for use as potential antiviral compounds which recognize double stranded DNA by triple helix formation. Many DNA-binding proteins bind in the major groove of DNA. It is anticipated that polyamide-oligonucleotide conjugates may be more effective inhibitors of sequence specific DNA binding proteins, since they will occlude both the major and minor grooves.

Detailed Description Text (25):
The pyrrole and imidazole polyamide-protein conjugates of this invention are contemplated for use as potential antiviral, antibacterial and antitumor compounds which recognize double stranded DNA by interaction with the minor groove of DNA. Many DNA-binding proteins bind in the major groove of DNA. It is anticipated that the appended peptide moiety will provide a means for introducing the polyamide into the cell.

Detailed Description Text (84):
The free amino group of the oligonucleotide is then reacted with the bis NHS ester of glutaric acid (DMF/DIEA) for 2 hours at room temperature to form activated acid (69). Excess NHS ester is removed by washing with a large excess of DMF. The activated acid is then treated with an equivalent of a polyamide containing a free amine prepared by the method of this invention. The coupling reaction (DMF/DIEA) is allowed to proceed for 12 hours, and any unreacted polyamide is removed by washing the resin. The oligonucleotide (70) is deprotected and simultaneously cleaved from the resin with a solution of 0.1 M NaOH at 55.degree. C. for 12 hours. The polyamide-oligonucleotide conjugate (71) is then purified by a single reverse phase chromatography step (C18, TEAA, pH 7), to give a 10% yield. A list of illustrative polyamide-oligonucleotide conjugates which have been prepared by the method of this invention is set forth in FIG. 18 and Table 5. FIG. 19 depicts a ribbon graphic illustrating how the conjugate Dp-G-PyPyPy-G-PyPyIm-linker-TTTTTT.sup.m C.sup.m CTTT-3' might bind to the double helical DNA. ##STR15##

Detailed Description Text (189):
BAM linker acid (39) (1 g, 2.6 mmol) was dissolved in 6.5 ml of DMF/HOBt (382 mg, 2.8 mmol). DCC (735 mg, 2.8 mmol) was added and the reaction mixture was shaken at room temperature. After 4 hours the precipitated DCU byproduct was filtered and the reaction mixture was added to 3 grams aminomethyl-polystyrene-resin (0.7 mmol/gram substitution) previously swollen for 30 minutes in DMF. Diisopropylethylamine (913 .mu.l, 5.3 mmol) was added and the reaction was shaken for 12 hours. After 12 hours the resin was determined by the ninhydrin test to be approximately 0.3 mmol/gram substituted. At this time the resin was washed with DMF and the remaining amine groups were capped by acetylation (2.times.) with excess acetic anhydride capping solution. The resin was washed with DMF, dichloromethane and MeOH and dried in vacuo.

Detailed Description Text (190):
Preparation of Boc-aminoacyl-pyrrolyl-4-(oxymethyl)-PAM-resin (42). Boc-Py-PAM-resin (42) (0.3 mmol/g substitution) was prepared using PAM linker acid 40 as described above for the BAM resin.

Other Reference Publication (305):
Wang et al., "Design, synthesis, cytotoxic properties and preliminary DNA sequencing evaluation of CPI-N-methylpyrrole hybrids. Enhancing effect of a trans double bond linker and role of the terminal amide functionality on cytotoxic potency," Anti-Cancer Drug Des. 11(1):15-34 (1996).

WEST

Freeform Search

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Term: 5502068.pn.

Display: 10 **Documents in Display Format:** - **Starting with Number** 1

Generate: ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search | Clear | Help | Logout | Interrupt

Main Menu | Show S Numbers | Edit S Numbers | Preferences | Cases

Search History

DATE: Sunday, January 12, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L9	L8 and formula	0	L9
L8	l6 and linker$1	0	L8
L7	L6 and linker$1 and kit$1	0	L7
L6	5502068.pn.	2	L6
L5	l2 and formla	0	L5
L4	l2 and kit$1	0	L4
L3	l2 and kits	0	L3
L2	L1 and linker$1	2	L2
L1	5843937.pn.	2	L1

END OF SEARCH HISTORY

Generate Collection

L6: Entry 1 of 2 File: USPT Mar 26, 1996

US-PAT-NO: 5502068
DOCUMENT-IDENTIFIER: US 5502068 A

TITLE: Cyclopropylpyrroloindole-oligopeptide anticancer agents

DATE-ISSUED: March 26, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lown; J. William	Edmonton			CA
Wang; Yuqiang	Edmonton			CA
Luo; Weide	Edmonton			CA

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Synphar Laboratories, Inc.	Alberta			CA	03

APPL-NO: 08/ 381355 [PALM]
DATE FILED: January 31, 1995

INT-CL: [06] A61 K 31/40, C07 D 487/04

US-CL-ISSUED: 514/397; 514/370, 514/377, 514/406, 514/410, 548/181, 548/233, 548/262.6, 548/265.4, 548/311.7, 548/364.7 , 548/421
US-CL-CURRENT: 514/397; 514/370, 514/377, 514/406, 514/410, 548/181, 548/233, 548/262.6, 548/265.4, 548/311.7, 548/364.7 , 548/421

FIELD-OF-SEARCH: 514/410, 514/370, 514/377, 514/397, 514/406, 548/421, 548/181, 548/233, 548/262.6, 548/265.4, 548/311.7364.7

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4912199	March 1990	Lown et al.	530/331
☐	4978757	December 1990	Kelly et al.	548/421

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
90/02746	March 1990	WO	

OTHER PUBLICATIONS

Wang et al., Journal of Medicinal Chemistry, "CC-1065 Functional Analogues Possessing Different Electron-Withdrawing Substituents and Leaving Groups: Synthesis Kinetics,

and Sequence Specificity of Reaction with DNA and Biological Evaluation", pp. 4172-4182, vol. 36, No. 26 (1993).
Wang et al., Heterocycles, "An Alternative Method for Synthesis of the CC-1065 Pharmacophore, 1,2,7,7a-Tetrahydrocycloprop[1,2-c]Indol-4-One", pp. 1399-1410, vol. 36, No. 6, (1993).

ART-UNIT: 121

PRIMARY-EXAMINER: Haley; Jacqueline

ABSTRACT:

The invention is directed to novel cyclopropylpyrroloindole-oligopeptide compounds which are useful as anticancer agents. The novel cyclopropylpyrroloindole-oligopeptide compounds have the following general structure: ##STR1## wherein, Het.sup.1 and Het.sup.2 are individually selected from the group consisting of pyrrole, imidazole, triazole, thiophene, furan, thiazole, oxazole and pyrazole,

R is selected from the group consisting of a valence bond; a C.sub.1 -C.sub.6 alkyl; a C.sub.2 -C.sub.6 alkenyl; a C.sub.2 -C.sub.6 alkynyl; and an ortho, meta or para linked aromatic group,

A is selected from the group consisting of a C.sub.1 -C.sub.6 alkyl group; an amidine or derivative thereof; a guanidine; a secondary, tertiary or quaternary ammonium salt; and a sulfonium salt,

n is 0 to 3, and

m is 0 to 3.

20 Claims, 7 Drawing figures